

What is claim d is:

1. A cleaner comprises:

a suction motor mounted in a main body, and generating a suction force;

a filter for collecting dust or filth sucked by the suction force generated at
5 the suction motor;

a suction head connected with the filter by a suction tube, and sucking
dust and filth on the floor;

a brush installed in the suction head so as to ascend/descend in a
vertical direction, and sweeping dust and foreign substances into the suction head;
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a brush height control apparatus installed in the suction head, and
making the brush ascend/descend in a vertical direction.

2. The cleaner of claim 1, wherein the brush height control unit
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a sliding unit supported bush so that the brush can be
ascended/descended in a vertical direction while being rotated;

a switching unit operated by a user in order to control the height of the
brush; and

20 an operation rod for transmitting an operating force of the switching unit
to the sliding unit.

3. The cleaner of claim 1, wherein the sliding unit comprises;

guide members mounted at an inner side surface of the suction head;

25 a sliding member at which both ends of a hinge shaft prolonged from both

end portions of the brush are rotatably inserted respectively, supported at the guide member so as to linearly move in a vertical direction; and

an elastic member positioned at a lower surface of the sliding member, and providing a certain elastic force for pushing the sliding member upwardly.

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4. The cleaner of claim 3, wherein the guide members are vertically positioned at both sides of inner surface of the suction head respectively, and having a sliding surface where the sliding member slides in a vertical direction.

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5. The cleaner of claim 3, wherein, a hinge shaft of the brush is inserted at center of the sliding member and rotatably supported, the operation rod is in contact with upper surface of the sliding member, the elastic member is supported at lower surface of the sliding member, and both side of the sliding member are in contact with the sliding surface of the guide member.

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6. The cleaner of claim 3, wherein the elastic member is a coil spring for elastically and upwardly supporting the sliding member.

7. The cleaner of claim 3, wherein rollers are mounted at the both side surfaces of the sliding member, and a guide rail where the rollers are contacted and rotated, is formed at inner surface of the guide member.

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8. The cleaner of claim 2, wherein the operation rod comprises:

a connection rod portion positioned in an axial direction of the brush;

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a push rod portion downwardly prolonged from both ends of the

connection rod portion, and pushing the sliding member; and

an elevating rod portion upwardly prolonged from the center of the connection rod portion, and being ascended/descended in a vertical direction according to the operation of the switching unit.

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9. The cleaner of claim 8, wherein the push rod portion is inserted in the guide portion formed in an inner side surface of the suction head, and supported so as to linearly move in a vertical direction.

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10. The cleaner of claim 8, wherein the switching unit comprises;

a main body rotatably supported in a mounting hole formed at the suction head;

a button portion formed on an upper side of the main body, and exposed to the upper side of the suction head so that a user can operate; and

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a cam portion formed on a lower surface of the main body, and having a plurality of grooves having different heights respectively at which the upper end of the elevating rod portion is inserted,.

11. The cleaner of claim 10, wherein hinge protrusions are prolonged from both side of the main body respectively, and rotatably supported at a mounting hole of the suction head.

12. The cleaner of claim 10, grooves comprises a first groove having a low height so as to move the elevating rod portion downwardly when the elevating rod portion is inserted at the first groove; and a second groove having a

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relatively higher height than that of the first groove so as to move the elevating rod portion upwardly when the elevating rod portion is inserted at the second groove.

13. The cleaner of claim 10, wherein an upper end of the elevating rod
5 portion at which the grooves are inserted, has a curved shape.